

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed August 25, 2005. Claims 1-38 were pending in the Application. In the Office Action, Claims 1-38 were rejected. In order to advance and expedite the prosecution of the present Application, Applicant amends Claims 10, 14, 15, 17, 18, 21-23, 27 and 30. Thus, Claims 1-38 remain pending in the Application. Applicants respectfully request reconsideration and favorable action in this case.

In the Office Action, the following actions were taken or matters were raised:

SECTION 102 REJECTIONS

Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,060,185 issued to Okutoh (hereinafter "*Okutoh*"). Claims 10, 11, 13, 14, 30 and 31 were rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,501,248 issued to Fujiwara (hereinafter "*Fujiwara*"). Claim 15 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,534,953 issued to Shirakawa (hereinafter "*Shirakawa*"). Of the rejected claims, Claims 1, 10, 15 and 30 are independent. Applicant respectfully traverses these rejections.

Independent Claim 1

Applicant respectfully submits that *Okutoh* does not disclose or even suggest each and every limitation of independent Claim 1. In the Office Action, the Examiner's basis for rejecting Claim 1 is "Figure 1 item 13" of *Okutoh* (Office Action, page 2). *Okutoh* appears to disclose that reference numeral 13 is directed toward an overcurrent protecting circuit (*Okutoh*, column 3, lines 39-40, figure 1). *Okutoh* recites:

As an excessive current passes through the load, there is a voltage drop across discharging and charging switches 7 and 8 due to their on-resistance. As the voltage drop reaches a voltage preset by the overcurrent-protecting circuit, the discharging switch 7 is put off via the switch driver circuit 5, so that the discharge of the battery is finished.

(*Okutoh*, column 3, lines 40-46) (emphasis added). Applicant respectfully submits that *Okutoh* appears to be directed toward detecting an overcurrent condition on a load external to the battery of *Okutoh*. Instead, Applicant's independent Claim 1 recites a protection circuit adapted to detect an "excessive current consumption condition" by the "electronic components forming the battery pack" (emphasis added). Accordingly, Applicants respectfully submit that *Okutoh* does not disclose or even suggest a protection circuit for detecting an excessive current consumption condition associated with electronic components forming the battery pack as recited by independent Claim 1. Thus, for at least this reason, Applicant respectfully submits that *Okutoh* does not anticipate independent Claim 1.

Independent Claims 10 and 30

In the Office action, the Examiner refers to "column 3 lines 48-56" of *Fujiwara* as disclosing the limitations of independent Claims 10 and 30 (Office Action page 2). Applicant respectfully disagrees. *Fujiwara* appears to disclose a discharge-state overcurrent detector and a charge-state overcurrent detector for a battery 30 of the battery pack of *Fujiwara* (*Fujiwara*, column 3, lines 48-56, column 5, lines 39-52, column 6, lines 26-39). *Fujiwara* recites:

The discharge-state [sic] overcurrent detector 13 detects a discharge-state overcurrent condition of the battery 30 when the battery pack 1 is set in the discharge state. . . . The charge-state overcurrent detector 21 detects a charge-state overcurrent condition of the battery 30 when the battery pack 1 is set in the charge state.

(*Fujiwara*, column 6, lines 26-39) (emphasis added). Thus, the portion of *Fujiwara* referred to by the Examiner appears to be directed toward a current condition of the battery 30 of the battery pack 1 of *Fujiwara*. In contrast, independent Claims 10 and 30 are directed toward detecting an excess current consumption condition by electronic components of the battery pack that are coupled to the battery. For example, independent Claim 10 recites "at least one battery cell means coupled to electronic components forming the battery pack" and "means for detecting an excessive current consumption condition associated with the electronic components" (emphasis added), and independent Claim 30 recites "a battery core pack" and "a protection circuit adapted

to distinguish between current consumption associated with electronic components coupled to the battery core pack and forming the battery pack and current flow associated with the host device to determine whether an excessive current consumption condition exists associated with the electronic components of the battery pack” (emphasis added). Thus, Applicant respectfully submits that *Fujiwara* does not disclose or even suggest, either in the portion of *Fujiwara* referred to by the Examiner or elsewhere on *Fujiwara*, the limitations of independent Claims 10 and 30. Accordingly, for at least these reasons, Applicant respectfully submits that *Fujiwara* does not anticipate independent Claims 10 and 30.

Independent Claim 15

In the Office Action, the Examiner refers to “figure 2 items 74 and 75” of *Shirakawa* as disclosing the limitations of independent Claim 15 (Office Action, page 3). Applicant respectfully disagrees. *Shirakawa* appears to disclose sensing resistors R74 and R75 for sensing and controlling the charge current for charging the battery 60 of *Shirakawa* (*Shirakawa*, column 5, lines 11-25). *Shirakawa* recites:

The current sensing resistors R74 and R75 are switched by the switching operation of transistors 76 and 77 . . . that are controlled by the control circuit 73. This controls the amount of charge current.

(*Shirakawa*, column 5, lines 22-25). Thus, the portion of *Shirakawa* referred to by the Examiner appears to be directed toward a current condition of the battery cell 60 of *Shirakawa*. In contrast, independent Claim 15 is directed toward detecting an excess current consumption condition by electronic components of the battery pack that are coupled to the battery. For example, independent Claim 15 recites “a battery core pack coupled to electronic components forming the battery pack” and “an integrated circuit adapted to compare potentials across at least two different current sensors to detect an excessive current consumption condition associated with the electronic components” (emphasis added). Thus, Applicant respectfully submits that *Shirakawa* does not disclose or even suggest, either in the portion of *Shirakawa* referred to by the Examiner or elsewhere on *Shirakawa*, the limitations of independent Claim 15. Accordingly, for

at least these reasons, Applicant respectfully submits that *Shirakawa* does not anticipate independent Claim 15.

Therefore, for at least the reasons discussed above, Applicant respectfully submits that independent Claims 1, 10, 15 and 30 are patentable over the respectively cited references. Further, Claims 11, 13, 14 and 31 that depend respectively from independent Claims 10 and 30 are also not anticipated by the respectively cited references at least because they incorporate the limitations of respective Claims 10 and 30 and also add additional elements that further distinguish the respectively cited references. Therefore, Applicant respectfully requests that the rejection of Claims 1, 10, 15 and 30, and Claims 11, 13, 14 and 31 that depend respectively therefrom, be withdrawn.

SECTION 103 REJECTIONS

Claims 2, 4, 5 and 9 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Okutoh* in view of *Fujiwara*. Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Okutoh* in view of *Shirakawa*. Claims 6 and 7 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Okutoh* in view of U.S. Patent No. 5,963,019 issued to Cheon (hereinafter “*Cheon*”). Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Okutoh* in view of U.S. Publication No. 2004/0062387 issued to O’Connor (hereinafter “*O’Connor*”). Claim 12 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Fujiwara* in view of *Shirakawa*. Claims 16, 24 and 25 was rejected under 35 U.S.C. §103(a) a being unpatentable over *Shirakawa* in view of *Fujiwara*. Claim 17 and 18 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Shirakawa* in view of U.S. Patent No. 6,046,575 issued to Demuro (hereinafter “*Demuro*”). Claim 19, 20, 22, 33 and 38 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Shirakwawa* and *Fujiwara* in view of U.S. Patent Publication No. 2003/0080747 issued to Huelss (hereinafter “*Huelss*”). Claims 21, 23 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Shirakwawa* and *Fujiwara* in view of U.S. Publication No. 2003/0117143 issued to Okada (hereinafter “*Okada*”). Claims 26, 28, 29, 35 and 37 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Shirakawa*

and *Fujiwara* in view of *Cheon*. Claims 27 and 36 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Shirakawa* and *Fujiwara* in view of U.S. Patent No. 6,492,791 issued to Saeki (hereinafter "*Saeki*"). Claim 32 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Fujiwara* in view of *Shirakawa*. Applicant respectfully traverses these rejections.

Claims 2-9, 12, 16-29 and 32-38 depend respectively from independent Claims 1, 10, 15 and 30. As discussed above, Claims 1, 10, 15 and 30 are in condition for allowance. Therefore, Claims 2-9, 12, 16-29 and 32-38 that depend respectively therefrom are also allowable. Accordingly, for at least this reason, Applicant respectfully requests that the rejection of Claims 2-9, 12, 16-29 and 32-38 be withdrawn.

Further, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103 for Claims 2-9, 12, 16-29 and 32-38. For example, regarding Claims 2, 4, 5 and 9, the Examiner indicates in the Office Action that Claims 2, 4, 5 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Okutoh* in view of *Fujiwara*. The Examiner also states:

Regarding claims 2, 4, 5 and 9, *Okutoh* does not disclose wherein the protection circuit is adapted to *Fujiwara* discloses in column 3 line 48 thru 56 wherein the protection circuit is designed to stop current flow At the time of invention, it would have been obvious to a person of ordinary skill in the art to design the protection circuit to interrupt the current flow at the detection of an excessive current so that it protects the battery pack from overcharge, which can be damaging to the system.

(Office Action, page 4). Applicant respectfully submits that the Examiner's basis for rejecting Claims 2, 4, 5 and 9 offers none of the required showings for supporting a rejection under 35 U.S.C. § 103. For example, the Examiner indicates what *Okutoh* purportedly lacks, but the Examiner fails to indicate how *Okutoh* purportedly meets the remaining limitations of Claims 2, 4, 5 and 9. Further, the Examiner offers no indication as to which of the cited *Okutoh* and

Fujiwara references is to be modified as suggested by the Examiner. To the contrary, the Examiner appears to do nothing more than piece together purported teachings of the cited references in order to arrive at Applicant's claimed invention, which is improper. Applicant respectfully submits that the remaining rejections under 35 U.S.C. § 103 in the Office Action for the remaining Claims 3, 6-8, 12, 16-29 and 32-38 are similarly deficient. Accordingly, for this reason also, Applicant respectfully submits that the rejection of Claims 2-9, 12, 16-29 and 32-38 is improper and should be withdrawn.

CONCLUSION

Applicant has made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests reconsideration and full allowance of all pending claims.

No fee is believed due with this Response. If, however, Applicant has overlooked the need for any fee due with this Response, the Commissioner is hereby authorized to charge any fees or credit any overpayment associated with this Response to Deposit Account No. 08-2025 of Hewlett-Packard Company.

Respectfully submitted,

By: James L. Baudino
James L. Baudino
Reg. No. 43,486

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Correspondence to:
L.Joy Griebenow
Hewlett-Packard Company
Intellectual Property Administration
P. O. Box 272400
Fort Collins, CO 80527-2400
Tel. 970-898-3884